



## RADIO TEST REPORT

For

OAXIS ASIA PTE LTD

myFirst Fone S3

Test Model: KW1401

Prepared for : OAXIS ASIA PTE LTD  
Address : 31 Woodlands Close #01-22 Singapore 737855

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.  
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Date of receipt of test sample : November 22, 2022  
Number of tested samples : 2  
Sample No. : A032123097-1, A032123097-2  
Serial number : Prototype  
Date of Test : November 22, 2022 ~ December 01, 2022  
Date of Report : April 04, 2023



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|   |  |
|---|--|
| <b>RADIO TEST REPORT</b><br><b>ETSI EN 301 511 V12.5.1 (2017-03)</b><br>Global System for Mobile communications (GSM); Mobile Stations (MS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU   |  |
| <b>Report Reference No. .... : LCSA032123097EF</b>  |  |
| Date of Issue ..... : April 04, 2023  |  |
| <b>Testing Laboratory Name .... : Shenzhen LCS Compliance Testing Laboratory Ltd.</b>   |  |
| Address ..... : Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China   |  |
| Testing Location/ Procedure ... : Full application of Harmonised standards ■<br>Partial application of Harmonised standards □<br>Other standard testing method □  |  |
| <b>Applicant's Name ..... : OAXIS ASIA PTE LTD</b>  |  |
| Address ..... : 31 Woodlands Close #01-22 Singapore 737855  |  |
| <b>Test Specification</b>   |  |
| Standard ..... : ETSI EN 301 511 V12.5.1 (2017-03)  |  |
| Test Report Form No. .... : LCSEMC-1.0  |  |
| TRF Originator ..... : Shenzhen LCS Compliance Testing Laboratory Ltd.  |  |
| Master TRF ..... : Dated 2017-06  |  |
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| <b>Test Item Description..... : myFirst Fone S3</b>   |  |
| Trade Mark..... : myFirst   |  |
| Test Model ..... : KW1401   |  |
| Ratings ..... : Input: DC 5V, 1000mA, Max 5W<br>Output: DC 5V, 1000mA, Max 5W<br>DC 3.87V by Rechargeable Li-ion Battery, 650mAh  |  |
| <b>Result ..... : Positive</b>  |  |

**Compiled by:**

Kay Hu/ Administrator

**Supervised by:**

Cary Luo/ Technique principal

**Approved by:**

Gavin Liang/ Manager



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## RADIO -- TEST REPORT

**Test Report No. : LCSA032123097EF**April 04, 2023

Date of issue

Test Model..... : KW1401

EUT..... : myFirst Fone S3

**Applicant..... : OAXIS ASIA PTE LTD**

Address..... : 31 Woodlands Close #01-22 Singapore 737855

Telephone..... : /

Fax..... : /

**Manufacturer..... : OAXIS ASIA PTE LTD**

Address..... : 31 Woodlands Close #01-22 Singapore 737855

Telephone..... : /

Fax..... : /

**Factory..... : Eastern Dynamics (Shenzhen) Technology Co., Ltd**Address..... : Building No.9, 3F, Longbi Industry Zone, Bantian Street,  
Longgang District, Shenzhen, Guangdong, China

Telephone..... : /

Fax..... : /

**Test Result****Positive**

The test report merely corresponds to the test sample.  
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.



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Revision History

| Report Version | Issue Date     | Revision Content | Revised By |
|----------------|----------------|------------------|------------|
| 000            | April 04, 2023 | Initial Issue    | ---        |
|                |                |                  |            |
|                |                |                  |            |

Note: At the customer's request, the revised report was submitted to LCSA112122073EF applicant by quoting the test data of LCSA112122073EF original report.





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## 1. GENERAL INFORMATION

### 1.1. Product Description for Equipment Under Test (EUT)

|                     |   |
|---------------------|---|
| EUT                 | : myFirst Fone S3   |
| Test Model          | : KW1401  |
| Power Supply        | : Input: DC 5V, 1000mA, Max 5W<br>Output: DC 5V, 1000mA, Max 5W<br>DC 3.87V by Rechargeable Li-ion Battery, 650mAh  |
| Hardware Version    | : ED01_MB_V1.2  |
| Software Version    | : /   |
| Bluetooth           | :   |
| Frequency Range     | : 2402MHz~2480MHz   |
| Channel Number      | : 79 channels for Bluetooth V4.2 (BDR/EDR)<br>40 channels for Bluetooth V4.2 (BT LE)  |
| Channel Spacing     | : 1MHz for Bluetooth V4.2 (BDR/EDR)<br>2MHz for Bluetooth V4.2 (BT LE)  |
| Modulation Type     | : GFSK, $\pi/4$ -DQPSK, 8-DPSK for Bluetooth V4.2 (BDR/EDR)<br>GFSK for Bluetooth V4.2 (BT LE)  |
| Bluetooth Version   | : V4.2  |
| Antenna Description | : Internal Antenna, 1.24dBi(Max.)   |
| WIFI(2.4G Band)     | :   |
| Frequency Range     | : 2412MHz~2472MHz   |
| Channel Spacing     | : 5MHz  |
| Channel Number      | : 13 Channel for 20MHz bandwidth(2412~2472MHz)  |
| Modulation Type     | : 802.11b: DSSS; 802.11g/n: OFDM  |
| Antenna Description | : Internal Antenna, 1.24dBi(Max.)   |
| 2G                  | :   |
| Support Band        | : <input checked="" type="checkbox"/> GSM 900 (EU-Band) <input checked="" type="checkbox"/> DCS 1800 (EU-Band)<br><input checked="" type="checkbox"/> GSM 850 (U.S.-Band) <input type="checkbox"/> PCS 1900 (U.S.-Band) |
| Release Version     | : R99   |
| GPRS Class          | : Class 12  |
| EGPRS Class         | : Class 12  |
| Uplink              | : GSM 900: 880MHz~915MHz<br>DCS 1800: 1710MHz~1785MHz   |
| Downlink            | : GSM 900: 925MHz~960MHz<br>DCS 1800: 1805MHz~1880MHz   |







Type Of Modulation : GMSK for GSM/GPRS; GMSK/8PSK for EGPRS

Antenna Description : Internal Antenna

-0.74dBi (max.) For GSM 900

0.22dBi (max.) For DCS 1800

Power Class : GSM 900: Level 5, DCS 1800: Level 0

EGPRS 900: Level 8, EGPRS 1800: Level 2

3G :

Support Band : ☐ WCDMA Band II (U.S.-Band)

☒ WCDMA Band V (U.S.-Band)

☐ WCDMA Band IV (U.S.-Band)

☒ WCDMA Band I (EU-Band)

☒ WCDMA Band VIII (EU-Band)

Release Version : R9

Uplink : WCDMA Band I: 1920MHz~1980MHz

WCDMA Band VIII: 880MHz~915MHz

Downlink : WCDMA Band I: 2110MHz~2170MHz

WCDMA Band VIII: 925MHz~960MHz

Type Of Modulation : QPSK/16QAM

Antenna Description : Internal Antenna

0.41dBi (max.) For WCDMA Band I

-0.74dBi (max.) For WCDMA Band VIII

Power Class : Level 3

LTE :

Support Band : ☒ E-UTRA Band 1(EU-Band)

☒ E-UTRA Band 3(EU-Band)

☒ E-UTRA Band 5(Non EU-Band)

☒ E-UTRA Band 7(EU-Band)

☒ E-UTRA Band 8(EU-Band)

☒ E-UTRA Band 20(EU-Band)

☒ E-UTRA Band 40(EU-Band)

☒ E-UTRA Band 41(Non EU-Band)

LTE Release Version : R10

FDD Band : Uplink: E-UTRA Band 1: 1920MHz~1980MHz

E-UTRA Band 3: 1710MHz~1785MHz

E-UTRA Band 7: 2500MHz~2570MHz

E-UTRA Band 8: 880MHz~915MHz

E-UTRA Band 20: 832MHz~862MHz

Downlink: E-UTRA Band 1: 2110MHz~2170MHz

E-UTRA Band 3: 1805MHz~1880MHz

E-UTRA Band 7: 2620MHz~2690MHz

E-UTRA Band 8: 925MHz~960MHz

E-UTRA Band 20: 791MHz~821MHz



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TDD Band : E-UTRA Band 40: 2300MHz ~ 2400MHz  
E-UTRA Band 41: 2496MHz~2690MHz  
Type Of Modulation : QPSK/16QAM  
Antenna Description : Internal Antenna  
0.23dBi (max.) For E-UTRA Band 1  
0.21dBi (max.) For E-UTRA Band 3  
0.12dBi (max.) For E-UTRA Band 7  
-0.73dBi (max.) For E-UTRA Band 8  
-1.34dBi (max.) For E-UTRA Band 20  
0dBi (max.) For E-UTRA Band 40  
0dBi (max.) For E-UTRA Band 41

Power Class : Class 3

GPS Receiver :

Receive Frequency : 1575.42MHz

Channel Number : 1

Antenna Description : Internal Antenna, 1.35dBi(Max.)

GLONASS Receiver :

Receive Frequency : 1602.5625MHz

Channel Number : 1

Antenna Description : Internal Antenna, 1.35dBi(Max.)

BDS Receiver :

Frequency Range : 1561.098MHz

Channel Number : 1

Antenna Description : Internal Antenna, 1.35dBi(Max.)

QZSS Receiver :

Frequency Range : 1575.42MHz

Channel Number : 1

Antenna Description : Internal Antenna, 1.35dBi(Max.)

SBAS Receiver :

Frequency Range : 1575.42MHz

Channel Number : 1

Antenna Description : Internal Antenna, 1.35dBi(Max.)







## 1.2. Support Equipment List

| Manufacturer | Description | Model    | Serial Number | Certificate |
|--------------|-------------|----------|---------------|-------------|
| OPPO         | Adapter     | OP52KAUH | ---           | CE          |

Note: The adapter is supplied by lab and only use tested.

## 1.3. External I/O

| I/O Port Description | Quantity | Cable                       |
|----------------------|----------|-----------------------------|
| Charging port        | 1        | USB Cable: 0.8m, unshielded |

## 1.4. Objective

| Standard Referenced | Standard Title   | Standard Version  |
|---------------------|--|-------------------|
| ETSI EN 301 511     | Global System for Mobile communications (GSM); Mobile Stations (MS) equipment; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU        | V12.5.1 (2017-03) |
| ETSI TS 151 010-1   | Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification (3GPP TS 51.010-1 version 12.8.0 Release 12) | V12.8.0 (2016-05) |

The objective is to determine compliance with ETSI EN 301 511 V12.5.1 (2017-03).

## 1.5. Test Conditions

| Conditions   | Temperature | Voltage  |
|--|-------------|----------|
| Normal   | 21-25°C     | DC 3.87V |
| Low extreme Temperature/Low extreme Voltage (TL/VL);   | -20°C       | DC 3.5V  |
| Low extreme Temperature/High extreme Voltage (TL/VH);  | -20°C       | DC 4.4V  |
| High extreme Temperature/Low extreme Voltage (TH/VL);  | +45°C       | DC 3.5V  |
| High extreme Temperature/High extreme Voltage (TH/VH). | +45°C       | DC 4.4V  |

Note1: For all conditions, the humidity range is:40-75%, the pressure range is 86-106kPa. The High Voltage DC 4.4V and Low Voltage DC 3.5V was declared by manufacturer



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## 1.6. Description Of Test Mode

During all testing, EUT is in link mode with base station emulator at maximum power level in each test mode and channel as below:

| Mode    | Channel | Frequency(MHz) |
|---------|---------|----------------|
| GSM 900 | 975     | 880.2          |
|         | 63      | 902.6          |
|         | 124     | 914.8          |

| Mode     | Channel | Frequency(MHz) |
|----------|---------|----------------|
| DCS 1800 | 512     | 1710.2         |
|          | 698     | 1747.4         |
|          | 885     | 1784.8         |

### Operating modes of EUT during test

|              |  |
|--------------|--|
| Traffic Mode | A communication link is set up with a System Simulator (ss). The Absolute Radio Frequency Channel Number is allocated to the lowest, middle and highest channel during the test for all working frequency bands. The EUT is commanded to operate at maximum transmitting power. A call has been established. |
| Idle Mode    | The EUT is synchronized to SS, and able to respond to paging messages and incoming call. An established call has been released.  |

Note: The EUT has one SIM card slots and the result was recorded in the report.

## 1.7. Measurement Uncertainty (95% confidence levels, k=2)

| Test Item                     | Uncertainty          |
|-------------------------------|----------------------|
| Radio Frequency               | $0.9 \times 10^{-4}$ |
| Total RF Power, Conducted     | 1.0 dB               |
| RF Power Density, Conducted   | 1.8 dB               |
| Spurious Emissions, Conducted | 1.8 dB               |
| All Emissions, Radiated       | 3.1 dB               |
| Temperature                   | 0.5°C                |
| Humidity                      | 1 %                  |
| DC And Low Frequency Voltages | 1 %                  |

## 1.8. Description of Test Facility

NVLAP Accreditation Code is 600167-0.

FCC Designation Number is CN5024.

CAB identifier is CN0071.

CNAS Registration Number is L4595.



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## 2. SYSTEM TEST CONFIGURATION

### 2.1. Justification

N/A

### 2.2. EUT Exercise Software

N/A

### 2.3. Special Accessories

The special accessories were supplied by Shenzhen LCS Compliance Testing Laboratory Ltd.

### 2.4. Block Diagram/Schematics

Please refer to the related document.

### 2.5. Equipment Modifications

Shenzhen LCS Compliance Testing Laboratory Ltd. has not done any modification on the EUT.

### 2.6. Test Setup

Please refer to the test setup photo.





### 3. SUMMARY OF TEST RESULTS

|                        |   |                |
|------------------------|---|----------------|
| Test Engineer          | : | Ling Zhu       |
| Temperature/ Humidity: | : | 23.1 °C/ 54.2% |

| Reference Clause No.<br>(ETSI TS 151 010-1) | Reference Clause No.<br>(ETSI EN 301 511) | Description of Test Items   | GSM 900 | DCS 1800 |
|---|---|---|---------|----------|
|   |   |   | Result  | Result   |
| 13.1  | 4.2.1                                     | Transmitter - Frequency error and phase error                             |         |          |
|   |   | Normal  | Pass    | Pass     |
|   |   | TL/VL   | Pass    | Pass     |
|   |   | TL/VH   | Pass    | Pass     |
|   |   | TH/VL   | Pass    | Pass     |
|   |   | TH/VH   | Pass    | Pass     |
|   |   | Vibration X-axis  | Pass    | Pass     |
|   |   | Vibration Y-axis  | Pass    | Pass     |
|   |   | Vibration Z-axis  | Pass    | Pass     |
| 13.2  | 4.2.2                                     | Transmitter - Frequency error under multipath and interference conditions |         |          |
|   |   | Normal  | Pass    | Pass     |
|   |   | TL/VL   | Pass    | Pass     |
|   |   | TL/VH   | Pass    | Pass     |
|   |   | TH/VL   | Pass    | Pass     |
|   |   | TH/VH   | Pass    | Pass     |
| 13.16.1                                     | 4.2.4                                     | Frequency error and phase error in GPRS multislot configuration           |         |          |
|   |   | Normal  | Pass    | Pass     |
|   |   | TL/VL   | Pass    | Pass     |
|   |   | TL/VH   | Pass    | Pass     |
|   |   | TH/VL   | Pass    | Pass     |
|   |   | TH/VH   | Pass    | Pass     |
|   |   | Vibration X-axis  | Pass    | Pass     |
|   |   | Vibration Y-axis  | Pass    | Pass     |
|   |   | Vibration Z-axis  | Pass    | Pass     |
| 13.3  | 4.2.5                                     | Transmitter output power and burst timing                                 |         |          |
|   |   | Normal  | Pass    | Pass     |
|   |   | TL/VL   | Pass    | Pass     |
|   |   | TL/VH   | Pass    | Pass     |
|   |   | TH/VL   | Pass    | Pass     |
|   |   | TH/VH   | Pass    | Pass     |
| 13.4  | 4.2.6                                     | Transmitter - Output RF spectrum  |         |          |
|   |   | Normal  | Pass    | Pass     |
|   |   | TL/VL   | Pass    | Pass     |
|   |   | TL/VH   | Pass    | Pass     |
|   |   | TH/VL   | Pass    | Pass     |



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|         |        |  |      |      |
|---------|--------|--|------|------|
|         |        | TH/VH  | Pass | Pass |
| 13.16.2 | 4.2.10 | Transmitter output power in GPRS multislot configuration                           |      |      |
|         |        | Normal   | Pass | Pass |
|         |        | TL/VL  | Pass | Pass |
|         |        | TL/VH  | Pass | Pass |
|         |        | TH/VL  | Pass | Pass |
|         |        | TH/VH  | Pass | Pass |
| 13.16.3 | 4.2.11 | Output RF spectrum in GPRS multislot configuration                                 |      |      |
|         |        | Normal   | Pass | Pass |
|         |        | TL/VL  | Pass | Pass |
|         |        | TL/VH  | Pass | Pass |
|         |        | TH/VL  | Pass | Pass |
|         |        | TH/VH  | Pass | Pass |
| 12.1.1  | 4.2.12 | Conducted spurious emissions - MS allocated a channel                              |      |      |
|         |        | Normal   | Pass | Pass |
|         |        | TN/VL  | Pass | Pass |
|         |        | TN/VH  | Pass | Pass |
| 12.1.2  | 4.2.13 | Conducted spurious emissions - MS in idle mode                                     |      |      |
|         |        | Normal   | Pass | Pass |
|         |        | TN/VL  | Pass | Pass |
|         |        | TN/VH  | Pass | Pass |
| 12.2.1  | 4.2.16 | Radiated spurious emissions - MS allocated a channel                               |      |      |
|         |        | Normal   | Pass | Pass |
|         |        | TN/VL  | Pass | Pass |
|         |        | TN/VH  | Pass | Pass |
| 12.2.2  | 4.2.17 | Radiated spurious emissions - MS in idle mode                                      |      |      |
|         |        | Normal   | Pass | Pass |
|         |        | TN/VL  | Pass | Pass |
|         |        | TN/VH  | Pass | Pass |
| 14.7.1  | 4.2.20 | Receiver Blocking and spurious response - speech channels                          |      |      |
|         |        | Normal   | Pass | Pass |
| 13.17.1 | 4.2.26 | Frequency error and Modulation accuracy in EGPRS Configuration                     |      |      |
|         |        | Normal   | Pass | Pass |
|         |        | TL/VL  | Pass | Pass |
|         |        | TL/VH  | Pass | Pass |
|         |        | TH/VL  | Pass | Pass |
|         |        | TH/VH  | Pass | Pass |
| 13.17.2 | 4.2.27 | Frequency error under multipath and interference conditions in EGPRS Configuration |      |      |
|         |        | Normal   | Pass | Pass |
|         |        | TL/VL  | Pass | Pass |
|         |        | TL/VH  | Pass | Pass |
|         |        | TH/VL  | Pass | Pass |
|         |        | TH/VH  | Pass | Pass |



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|          |        |   |      |
|----------|--------|---|------|
| 13.17.3  | 4.2.28 | EGPRS Transmitter output power                        |      |
|          |        | Normal  | Pass |
|          |        | TL/VL   | Pass |
|          |        | TL/VH   | Pass |
|          |        | TH/VL   | Pass |
|          |        | TH/VH   | Pass |
| 13.17.4  | 4.2.29 | Output RF spectrum in EGPRS configuration             |      |
|          |        | Normal  | Pass |
|          |        | TL/VL   | Pass |
|          |        | TL/VH   | Pass |
|          |        | TH/VL   | Pass |
|          |        | TH/VH   | Pass |
| 14.18.5  | 4.2.30 | Blocking and spurious response in EGPRS configuration |      |
|          |        | Normal  | Pass |
| 14.6.1   | 4.2.32 | Intermodulation rejection - speech channels           |      |
|          |        | Normal  | Pass |
| 14.6.2   | 4.2.33 | Intermodulation rejection - control channels          |      |
|          |        | Normal  | N/A  |
| 14.18.4  | 4.2.34 | Intermodulation rejection - EGPRS                     |      |
|          |        | Normal  | Pass |
| 14.8.1   | 4.2.35 | AM suppression - speech channels                      |      |
|          |        | Normal  | Pass |
| 14.8.1   | 4.2.36 | AM suppression - control channels                     |      |
|          |        | Normal  | N/A  |
| 14.8.3   | 4.2.37 | AM suppression - packet channels                      |      |
|          |        | Normal  | Pass |
| 14.5.1.1 | 4.2.38 | Adjacent channel rejection - speech channels (TCH/FS) |      |
|          |        | Normal  | Pass |
| 14.5.2   | 4.2.39 | Adjacent channel rejection - control channels         |      |
|          |        | Normal  | N/A  |
| 14.18.3  | 4.2.40 | Adjacent channel rejection - EGPRS                    |      |
|          |        | Normal  | Pass |
| 14.2.1   | 4.2.42 | Reference sensitivity - TCH/FS                        |      |
|          |        | Normal  | Pass |
| 14.2.3   | 4.2.43 | Reference sensitivity - FACCH/F                       |      |
|          |        | Normal  | Pass |
| 14.16.1  | 4.2.44 | Minimum Input level for Reference Performance - GPRS  |      |
|          |        | Normal  | Pass |
|          |        | TL/VL   | Pass |
|          |        | TL/VH   | Pass |



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|         |        |   |      |      |
|---------|--------|---|------|------|
| 14.18.1 | 4.2.45 | TH/VL   | Pass | Pass |
|         |        | TH/VH   | Pass | Pass |
|         |        | Minimum Input level for Reference Performance - EGPRS |      |      |
|         |        | Normal  | Pass | Pass |
|         |        | TL/VL (for MCS 4 only)                                | Pass | Pass |
|         |        | TL/VH (for MCS 4 only)                                | Pass | Pass |
|         |        | H/VL (for MCS 4 only)                                 | Pass | Pass |
|         |        | TH/VH (for MCS 4 only)                                | Pass | Pass |

\*\*\*Note:

**Result:** Describes test result of Test Case.

**Pass:** Test Case passed on specified conformance test platform.

**Normal(TN/VN):** Normal temperature – 25°C; Normal voltage. – DC 3.87V

**TH:** High extreme Temperature – +45°C

**VH:** High extreme Voltage – DC 4.4V

**TL:** Low extreme Temperature – -20°C

**VL:** Low extreme Voltage – DC 3.5V

**Vibration X-axis/ Y-axis/ Z-axis:** Vibration test condition for X/Y/Z axis.

**N/A:** Not applicable.

—: Not test.





#### 4. LIST OF MEASURING EQUIPMENT

| Item | Equipment                           | Manufacturer      | Model No.  | Serial No.  | Cal Date   | Due Date   |
|------|-------------------------------------|-------------------|------------|-------------|------------|------------|
| 1    | LTE Test Software                   | Tonscend          | JS1120-1   | N/A         | N/A        | N/A        |
| 2    | RF Control Unit                     | Tonscend          | JS0806-1   | 158060009   | 2022-10-29 | 2023-10-28 |
| 3    | MXA Signal Analyzer                 | Agilent           | N9020A     | MY51250905  | 2022-10-29 | 2023-10-28 |
| 4    | DC Power Supply                     | Agilent           | E3642A     | N/A         | 2022-10-29 | 2023-10-28 |
| 5    | MXG Vector Signal Generator         | Agilent           | N5182A     | MY47071151  | 2022-06-16 | 2023-06-15 |
| 6    | PSG Analog Signal Generator         | Agilent           | E8257D     | MY4520521   | 2022-06-16 | 2023-06-15 |
| 7    | Temperature & Humidity Chamber      | GUANGZHOU GOGNWEN | GDS-100    | 70932       | 2022-10-06 | 2023-10-05 |
| 8    | EMI Test Software                   | Farad             | EZ         | /           | N/A        | N/A        |
| 9    | 3m Full Anechoic Chamber            | MRDIANZI          | FAC-3M     | MR009       | 2021-09-25 | 2024-09-24 |
| 10   | Positioning Controller              | Max-Full          | MF7802BS   | MF780208586 | N/A        | N/A        |
| 11   | Active Loop Antenna                 | SCHWARZBECK       | FMZB 1519B | 00005       | 2021-08-29 | 2024-08-28 |
| 12   | By-log Antenna                      | SCHWARZBECK       | VULB9163   | 9163-470    | 2021-09-12 | 2024-09-11 |
| 13   | Horn Antenna                        | SCHWARZBECK       | BBHA 9120D | 9120D-1925  | 2021-09-05 | 2024-09-04 |
| 14   | Broadband Horn Antenna              | SCHWARZBECK       | BBHA 9170  | 791         | 2021-08-29 | 2024-08-28 |
| 15   | Broadband Preamplifier              | SCHWARZBECK       | BBV9719    | 9719-025    | 2022-06-16 | 2023-06-15 |
| 16   | EMI Test Receiver                   | R&S               | ESR 7      | 101181      | 2022-06-16 | 2023-06-15 |
| 17   | RS SPECTRUM ANALYZER                | R&S               | FSP40      | 100503      | 2022-10-29 | 2023-10-28 |
| 18   | Broadband Preamplifier              | /                 | BP-01M18G  | P190501     | 2022-06-16 | 2023-06-15 |
| 19   | WIDEBAND RADIO COMMUNICATION TESTER | R&S               | CMW 500    | 103818      | 2022-06-16 | 2023-06-15 |
| 20   | RF Filter                           | Micro-Tronics     | BRC50718   | 017         | 2022-10-29 | 2023-10-28 |
| 21   | RF Filter                           | Micro-Tronics     | BRC50719   | 011         | 2022-10-29 | 2023-10-28 |
| 22   | RF Filter                           | Micro-Tronics     | BRC50720   | 011         | 2022-10-29 | 2023-10-28 |
| 23   | RF Filter                           | Micro-Tronics     | BRC50721   | 013         | 2022-10-29 | 2023-10-28 |
| 24   | RF Filter                           | Micro-Tronics     | BRM50702   | 195         | 2022-08-17 | 2023-08-16 |
| 25   | 6dB Attenuator                      | /                 | 100W/6dB   | 1172040     | 2022-06-16 | 2023-06-15 |
| 26   | 3dB Attenuator                      | /                 | 2N-3dB     | /           | 2022-10-29 | 2023-10-28 |



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## 5. PHOTOGRAPHS OF TEST SETUP

Please refer to separated files Appendix D for Photographs of Test Setup\_RF.

## 6. PHOTOGRAPHS OF THE EUT

Please refer to separated files Appendix C for Photographs of The EUT.





## Annex A

### Transmitter output power and burst timing(Worst Case)

| Mode: GSM 900 , Low channel CH 975:880.2MHz |                   |       |       |       |       |            |
|---|-------------------|-------|-------|-------|-------|------------|
| Power Control level                         | Output power(dBm) |       |       |       |       | Conclusion |
|   | Normal            | TL/VL | TH/VL | TL/VH | TH/VH |            |
| 5   | 32.47             | 32.45 | 32.46 | 32.55 | 32.61 | PASS       |
| 6   | 29.96             | 29.94 | 29.89 | 29.95 | 29.88 | PASS       |
| 7   | 28.58             | 28.56 | 28.49 | 28.50 | 28.42 | PASS       |
| 8   | 26.15             | 26.15 | 26.08 | 26.00 | 25.92 | PASS       |
| 9   | 25.46             | 25.41 | 25.44 | 25.37 | 25.33 | PASS       |
| 10  | 22.44             | 22.50 | 22.56 | 22.63 | 22.71 | PASS       |
| 11  | 20.84             | 20.83 | 20.81 | 20.71 | 20.76 | PASS       |
| 12  | 18.67             | 18.62 | 18.55 | 18.57 | 18.64 | PASS       |
| 13  | 16.01             | 15.94 | 15.96 | 15.92 | 15.96 | PASS       |
| 14  | 13.93             | 13.88 | 13.81 | 13.74 | 13.76 | PASS       |
| 15  | 12.81             | 12.90 | 12.90 | 13.00 | 12.98 | PASS       |
| 16  | 11.52             | 11.44 | 11.40 | 11.36 | 11.27 | PASS       |
| 17  | 9.32              | 9.34  | 9.30  | 9.23  | 9.31  | PASS       |
| 18  | 6.18              | 6.13  | 6.09  | 6.10  | 6.12  | PASS       |
| 19  | 4.58              | 4.49  | 4.42  | 4.49  | 4.58  | PASS       |

| Mode: GSM 900 , middle channel CH 63:902.6MHz |                   |       |       |       |       |            |
|---|-------------------|-------|-------|-------|-------|------------|
| Power Control level                           | Output power(dBm) |       |       |       |       | Conclusion |
|   | Normal            | TL/VL | TH/VL | TL/VH | TH/VH |            |
| 5   | 32.46             | 32.39 | 32.43 | 32.35 | 32.35 | PASS       |
| 6   | 29.92             | 30.01 | 30.07 | 30.16 | 30.19 | PASS       |
| 7   | 28.42             | 28.33 | 28.39 | 28.39 | 28.45 | PASS       |
| 8   | 26.13             | 26.14 | 26.21 | 26.23 | 26.14 | PASS       |
| 9   | 25.41             | 25.38 | 25.40 | 25.48 | 25.48 | PASS       |
| 10  | 22.49             | 22.58 | 22.67 | 22.60 | 22.67 | PASS       |
| 11  | 20.81             | 20.79 | 20.74 | 20.69 | 20.68 | PASS       |
| 12  | 18.82             | 18.82 | 18.83 | 18.74 | 18.71 | PASS       |
| 13  | 16.01             | 15.93 | 15.86 | 15.84 | 15.84 | PASS       |
| 14  | 13.92             | 14.01 | 14.08 | 14.04 | 14.14 | PASS       |
| 15  | 12.65             | 12.69 | 12.60 | 12.64 | 12.58 | PASS       |
| 16  | 11.49             | 11.39 | 11.38 | 11.47 | 11.48 | PASS       |
| 17  | 9.44              | 9.51  | 9.54  | 9.45  | 9.36  | PASS       |
| 18  | 6.16              | 6.16  | 6.07  | 6.06  | 6.00  | PASS       |
| 19  | 4.53              | 4.44  | 4.43  | 4.50  | 4.42  | PASS       |



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| Mode: GSM 900 , High channel CH 124:914.8MHz |                   |       |       |       |       |            |
|--|-------------------|-------|-------|-------|-------|------------|
| Power Control level                          | Output power(dBm) |       |       |       |       | Conclusion |
|  | Normal            | TL/VL | TH/VL | TL/VH | TH/VH |            |
| 5  | 32.44             | 32.52 | 32.54 | 32.58 | 32.48 | PASS       |
| 6  | 29.93             | 29.93 | 29.91 | 29.91 | 29.99 | PASS       |
| 7  | 28.58             | 28.57 | 28.66 | 28.70 | 28.68 | PASS       |
| 8  | 26.27             | 26.29 | 26.37 | 26.34 | 26.30 | PASS       |
| 9  | 25.43             | 25.42 | 25.38 | 25.47 | 25.49 | PASS       |
| 10   | 22.54             | 22.55 | 22.56 | 22.60 | 22.60 | PASS       |
| 11   | 20.75             | 20.79 | 20.85 | 20.77 | 20.69 | PASS       |
| 12   | 18.73             | 18.73 | 18.68 | 18.63 | 18.61 | PASS       |
| 13   | 16.12             | 16.12 | 16.05 | 16.00 | 16.00 | PASS       |
| 14   | 13.95             | 13.97 | 13.94 | 14.00 | 14.06 | PASS       |
| 15   | 12.80             | 12.73 | 12.80 | 12.80 | 12.75 | PASS       |
| 16   | 11.55             | 11.60 | 11.70 | 11.62 | 11.71 | PASS       |
| 17   | 9.29              | 9.38  | 9.35  | 9.30  | 9.30  | PASS       |
| 18   | 6.26              | 6.18  | 6.17  | 6.10  | 6.18  | PASS       |
| 19   | 4.66              | 4.68  | 4.77  | 4.74  | 4.68  | PASS       |

| Mode: DCS1800, Low channel CH 512:1710.2MHz |                   |       |       |       |       |            |
|---|-------------------|-------|-------|-------|-------|------------|
| Power Control level                         | Output power(dBm) |       |       |       |       | Conclusion |
|   | Normal            | TL/VL | TH/VL | TL/VH | TH/VH |            |
| 0   | 29.64             | 29.70 | 29.74 | 29.67 | 29.74 | PASS       |
| 1   | 28.23             | 28.29 | 28.28 | 28.27 | 28.35 | PASS       |
| 2   | 26.24             | 26.21 | 26.19 | 26.17 | 26.26 | PASS       |
| 3   | 23.60             | 23.67 | 23.60 | 23.70 | 23.68 | PASS       |
| 4   | 21.09             | 21.11 | 21.06 | 20.99 | 21.05 | PASS       |
| 5   | 20.43             | 20.49 | 20.45 | 20.42 | 20.52 | PASS       |
| 6   | 18.74             | 18.71 | 18.75 | 18.65 | 18.73 | PASS       |
| 7   | 16.42             | 16.45 | 16.53 | 16.63 | 16.70 | PASS       |
| 8   | 14.52             | 14.60 | 14.67 | 14.72 | 14.64 | PASS       |
| 9   | 11.87             | 11.88 | 11.82 | 11.81 | 11.90 | PASS       |
| 10  | 9.49              | 9.45  | 9.54  | 9.47  | 9.38  | PASS       |
| 11  | 7.25              | 7.29  | 7.30  | 7.31  | 7.38  | PASS       |
| 12  | 5.74              | 5.76  | 5.73  | 5.66  | 5.59  | PASS       |
| 13  | 4.06              | 4.13  | 4.11  | 4.03  | 4.03  | PASS       |
| 14  | 3.19              | 3.17  | 3.20  | 3.24  | 3.33  | PASS       |
| 15  | 0.69              | 0.66  | 0.74  | 0.64  | 0.63  | PASS       |



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| Mode: DCS1800, middle channel CH 698:1747.4MHz |                   |       |       |       |       |            |
|--|-------------------|-------|-------|-------|-------|------------|
| Power Control level                            | Output power(dBm) |       |       |       |       | Conclusion |
|  | Normal            | TL/VL | TH/VL | TL/VH | TH/VH |            |
| 0  | 29.55             | 29.63 | 29.57 | 29.66 | 29.70 | PASS       |
| 1  | 28.28             | 28.20 | 28.27 | 28.18 | 28.20 | PASS       |
| 2  | 26.23             | 26.21 | 26.24 | 26.25 | 26.31 | PASS       |
| 3  | 23.65             | 23.57 | 23.65 | 23.70 | 23.77 | PASS       |
| 4  | 21.09             | 21.08 | 21.00 | 21.06 | 21.05 | PASS       |
| 5  | 20.42             | 20.34 | 20.43 | 20.36 | 20.29 | PASS       |
| 6  | 18.62             | 18.58 | 18.49 | 18.49 | 18.47 | PASS       |
| 7  | 16.48             | 16.41 | 16.43 | 16.36 | 16.39 | PASS       |
| 8  | 14.47             | 14.41 | 14.39 | 14.35 | 14.28 | PASS       |
| 9  | 11.94             | 12.01 | 11.92 | 11.86 | 11.88 | PASS       |
| 10   | 9.47              | 9.42  | 9.47  | 9.57  | 9.58  | PASS       |
| 11   | 7.26              | 7.31  | 7.28  | 7.24  | 7.20  | PASS       |
| 12   | 5.74              | 5.80  | 5.86  | 5.86  | 5.80  | PASS       |
| 13   | 4.14              | 4.19  | 4.18  | 4.24  | 4.32  | PASS       |
| 14   | 3.09              | 3.10  | 3.07  | 3.05  | 3.13  | PASS       |
| 15   | 0.57              | 0.59  | 0.54  | 0.47  | 0.55  | PASS       |

| Mode: DCS1800, high channel CH 885:1784.8MHz |                   |       |       |       |       |            |
|--|-------------------|-------|-------|-------|-------|------------|
| Power Control level                          | Output power(dBm) |       |       |       |       | Conclusion |
|  | Normal            | TL/VL | TH/VL | TL/VH | TH/VH |            |
| 0  | 29.53             | 29.61 | 29.60 | 29.53 | 29.48 | PASS       |
| 1  | 28.19             | 28.19 | 28.23 | 28.31 | 28.28 | PASS       |
| 2  | 26.25             | 26.17 | 26.26 | 26.28 | 26.37 | PASS       |
| 3  | 23.56             | 23.56 | 23.65 | 23.60 | 23.56 | PASS       |
| 4  | 21.10             | 21.00 | 21.02 | 21.07 | 21.03 | PASS       |
| 5  | 20.53             | 20.53 | 20.45 | 20.47 | 20.52 | PASS       |
| 6  | 18.65             | 18.58 | 18.52 | 18.49 | 18.41 | PASS       |
| 7  | 16.32             | 16.41 | 16.49 | 16.42 | 16.35 | PASS       |
| 8  | 14.42             | 14.43 | 14.52 | 14.54 | 14.61 | PASS       |
| 9  | 11.75             | 11.79 | 11.84 | 11.84 | 11.88 | PASS       |
| 10   | 9.36              | 9.33  | 9.23  | 9.19  | 9.21  | PASS       |
| 11   | 7.28              | 7.25  | 7.24  | 7.22  | 7.16  | PASS       |
| 12   | 5.66              | 5.58  | 5.60  | 5.61  | 5.61  | PASS       |
| 13   | 3.99              | 3.99  | 3.94  | 3.90  | 3.92  | PASS       |
| 14   | 3.04              | 3.07  | 3.08  | 3.03  | 2.93  | PASS       |
| 15   | 0.56              | 0.62  | 0.63  | 0.59  | 0.59  | PASS       |



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Mode: EGPRS 900 , Low channel CH 975:880.2MHz

| Power Control level | Output power(dBm) |       |       |       |       | Conclusion |
|---------------------|-------------------|-------|-------|-------|-------|------------|
|                     | Normal            | TL/VL | TH/VL | TL/VH | TH/VH |            |
| 8                   | 26.20             | 26.14 | 26.23 | 26.27 | 26.34 | PASS       |
| 9                   | 25.52             | 25.46 | 25.46 | 25.44 | 25.49 | PASS       |
| 10                  | 22.54             | 22.52 | 22.49 | 22.57 | 22.64 | PASS       |
| 11                  | 20.90             | 20.81 | 20.86 | 20.80 | 20.86 | PASS       |
| 12                  | 18.66             | 18.68 | 18.70 | 18.65 | 18.57 | PASS       |
| 13                  | 16.17             | 16.07 | 16.02 | 16.08 | 16.05 | PASS       |
| 14                  | 13.93             | 13.89 | 13.79 | 13.76 | 13.76 | PASS       |
| 15                  | 12.65             | 12.65 | 12.69 | 12.72 | 12.69 | PASS       |
| 16                  | 11.53             | 11.57 | 11.53 | 11.63 | 11.56 | PASS       |
| 17                  | 9.46              | 9.47  | 9.44  | 9.39  | 9.38  | PASS       |
| 18                  | 6.21              | 6.28  | 6.34  | 6.43  | 6.41  | PASS       |
| 19                  | 4.53              | 4.53  | 4.59  | 4.57  | 4.56  | PASS       |

Mode: EGPRS 900 , middle channel CH 63:902.6MHz

| Power Control level | Output power(dBm) |       |       |       |       | Conclusion |
|---------------------|-------------------|-------|-------|-------|-------|------------|
|                     | Normal            | TL/VL | TH/VL | TL/VH | TH/VH |            |
| 8                   | 26.25             | 26.16 | 26.23 | 26.19 | 26.12 | PASS       |
| 9                   | 25.53             | 25.57 | 25.54 | 25.54 | 25.45 | PASS       |
| 10                  | 22.45             | 22.54 | 22.57 | 22.50 | 22.42 | PASS       |
| 11                  | 20.82             | 20.88 | 20.82 | 20.78 | 20.79 | PASS       |
| 12                  | 18.73             | 18.75 | 18.73 | 18.79 | 18.77 | PASS       |
| 13                  | 16.12             | 16.20 | 16.11 | 16.01 | 16.04 | PASS       |
| 14                  | 14.03             | 13.99 | 14.00 | 14.07 | 14.07 | PASS       |
| 15                  | 12.64             | 12.73 | 12.65 | 12.71 | 12.63 | PASS       |
| 16                  | 11.44             | 11.36 | 11.33 | 11.38 | 11.39 | PASS       |
| 17                  | 9.39              | 9.43  | 9.48  | 9.52  | 9.61  | PASS       |
| 18                  | 6.08              | 6.09  | 6.12  | 6.07  | 6.09  | PASS       |
| 19                  | 4.52              | 4.48  | 4.44  | 4.53  | 4.50  | PASS       |



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| Mode: EGPRS 900 , High channel CH 124:914.8MHz |                   |       |       |       |       |            |
|--|-------------------|-------|-------|-------|-------|------------|
| Power Control level                            | Output power(dBm) |       |       |       |       | Conclusion |
|  | Normal            | TL/VL | TH/VL | TL/VH | TH/VH |            |
| 8  | 26.22             | 26.29 | 26.33 | 26.24 | 26.15 | PASS       |
| 9  | 25.41             | 25.33 | 25.38 | 25.32 | 25.31 | PASS       |
| 10   | 22.43             | 22.34 | 22.30 | 22.21 | 22.23 | PASS       |
| 11   | 20.79             | 20.77 | 20.77 | 20.79 | 20.84 | PASS       |
| 12   | 18.69             | 18.75 | 18.69 | 18.70 | 18.61 | PASS       |
| 13   | 16.13             | 16.21 | 16.23 | 16.24 | 16.16 | PASS       |
| 14   | 13.93             | 13.92 | 13.85 | 13.86 | 13.91 | PASS       |
| 15   | 12.79             | 12.73 | 12.79 | 12.71 | 12.66 | PASS       |
| 16   | 11.41             | 11.38 | 11.45 | 11.52 | 11.47 | PASS       |
| 17   | 9.35              | 9.45  | 9.54  | 9.49  | 9.41  | PASS       |
| 18   | 6.27              | 6.26  | 6.21  | 6.18  | 6.12  | PASS       |
| 19   | 4.51              | 4.43  | 4.47  | 4.48  | 4.42  | PASS       |

| Mode: EGPRS 1800, Low channel CH 512:1710.2MHz |                   |       |       |       |       |            |
|--|-------------------|-------|-------|-------|-------|------------|
| Power Control level                            | Output power(dBm) |       |       |       |       | Conclusion |
|  | Normal            | TL/VL | TH/VL | TL/VH | TH/VH |            |
| 2  | 26.36             | 26.41 | 26.50 | 26.47 | 26.42 | PASS       |
| 3  | 23.71             | 23.73 | 23.77 | 23.79 | 23.84 | PASS       |
| 4  | 20.95             | 20.85 | 20.86 | 20.96 | 20.88 | PASS       |
| 5  | 20.59             | 20.60 | 20.60 | 20.62 | 20.60 | PASS       |
| 6  | 18.63             | 18.56 | 18.49 | 18.42 | 18.46 | PASS       |
| 7  | 16.34             | 16.41 | 16.41 | 16.37 | 16.42 | PASS       |
| 8  | 14.58             | 14.63 | 14.62 | 14.59 | 14.68 | PASS       |
| 9  | 11.76             | 11.71 | 11.75 | 11.74 | 11.75 | PASS       |
| 10   | 9.51              | 9.51  | 9.56  | 9.52  | 9.56  | PASS       |
| 11   | 7.36              | 7.33  | 7.30  | 7.22  | 7.16  | PASS       |
| 12   | 5.71              | 5.75  | 5.83  | 5.87  | 5.84  | PASS       |
| 13   | 4.01              | 4.08  | 3.98  | 3.99  | 4.07  | PASS       |
| 14   | 3.02              | 3.08  | 3.03  | 2.98  | 2.89  | PASS       |
| 15   | 0.69              | 0.75  | 0.75  | 0.76  | 0.84  | PASS       |



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| Mode: EGPRS 1800, middle channel CH 698:1747.4MHz |                   |       |       |       |       |            |
|---|-------------------|-------|-------|-------|-------|------------|
| Power Control level                               | Output power(dBm) |       |       |       |       | Conclusion |
|   | Normal            | TL/VL | TH/VL | TL/VH | TH/VH |            |
| 2   | 26.28             | 26.32 | 26.26 | 26.28 | 26.27 | PASS       |
| 3   | 23.64             | 23.55 | 23.62 | 23.56 | 23.62 | PASS       |
| 4   | 20.94             | 20.85 | 20.90 | 20.93 | 20.95 | PASS       |
| 5   | 20.40             | 20.40 | 20.39 | 20.44 | 20.48 | PASS       |
| 6   | 18.66             | 18.64 | 18.65 | 18.72 | 18.78 | PASS       |
| 7   | 16.43             | 16.42 | 16.40 | 16.41 | 16.36 | PASS       |
| 8   | 14.45             | 14.51 | 14.56 | 14.65 | 14.59 | PASS       |
| 9   | 11.90             | 11.90 | 11.83 | 11.79 | 11.81 | PASS       |
| 10  | 9.47              | 9.51  | 9.50  | 9.57  | 9.66  | PASS       |
| 11  | 7.30              | 7.36  | 7.37  | 7.37  | 7.31  | PASS       |
| 12  | 5.82              | 5.72  | 5.74  | 5.75  | 5.70  | PASS       |
| 13  | 4.10              | 4.08  | 4.03  | 3.98  | 4.04  | PASS       |
| 14  | 3.13              | 3.22  | 3.22  | 3.17  | 3.15  | PASS       |
| 15  | 0.54              | 0.63  | 0.55  | 0.64  | 0.66  | PASS       |

| Mode: EGPRS 1800, high channel CH 885:1784.8MHz |                   |       |       |       |       |            |
|---|-------------------|-------|-------|-------|-------|------------|
| Power Control level                             | Output power(dBm) |       |       |       |       | Conclusion |
|   | Normal            | TL/VL | TH/VL | TL/VH | TH/VH |            |
| 2   | 26.33             | 26.35 | 26.29 | 26.26 | 26.21 | PASS       |
| 3   | 23.62             | 23.61 | 23.69 | 23.71 | 23.72 | PASS       |
| 4   | 20.93             | 20.88 | 20.91 | 20.86 | 20.89 | PASS       |
| 5   | 20.53             | 20.49 | 20.49 | 20.56 | 20.51 | PASS       |
| 6   | 18.64             | 18.72 | 18.82 | 18.75 | 18.73 | PASS       |
| 7   | 16.44             | 16.39 | 16.45 | 16.51 | 16.60 | PASS       |
| 8   | 14.53             | 14.49 | 14.51 | 14.48 | 14.48 | PASS       |
| 9   | 11.89             | 11.97 | 12.06 | 12.01 | 12.01 | PASS       |
| 10  | 9.37              | 9.47  | 9.53  | 9.58  | 9.58  | PASS       |
| 11  | 7.40              | 7.38  | 7.38  | 7.29  | 7.23  | PASS       |
| 12  | 5.73              | 5.82  | 5.78  | 5.78  | 5.70  | PASS       |
| 13  | 4.06              | 4.07  | 4.16  | 4.16  | 4.18  | PASS       |
| 14  | 3.13              | 3.09  | 3.19  | 3.18  | 3.12  | PASS       |
| 15  | 0.70              | 0.73  | 0.81  | 0.78  | 0.78  | PASS       |



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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

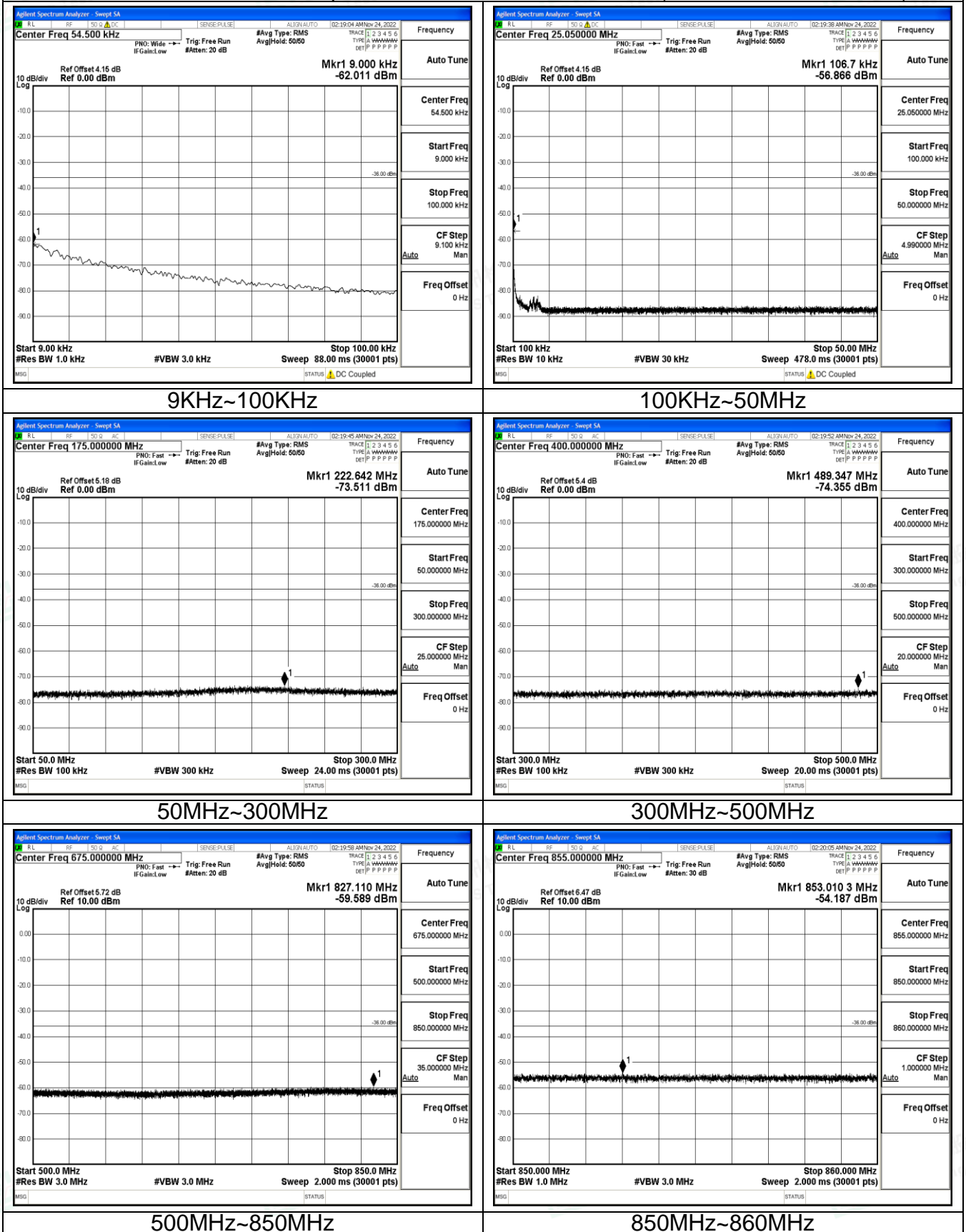
Scan code to check authenticity



## Transmitter spurious emissions

Conducted spurious emissions - MS allocated a channel (Worst Case)

The Worst Test Result of Spurious Emissions for GSM 900 (Middle Channel, Traffic)



Shenzhen LCS Compliance Testing Laboratory Ltd.

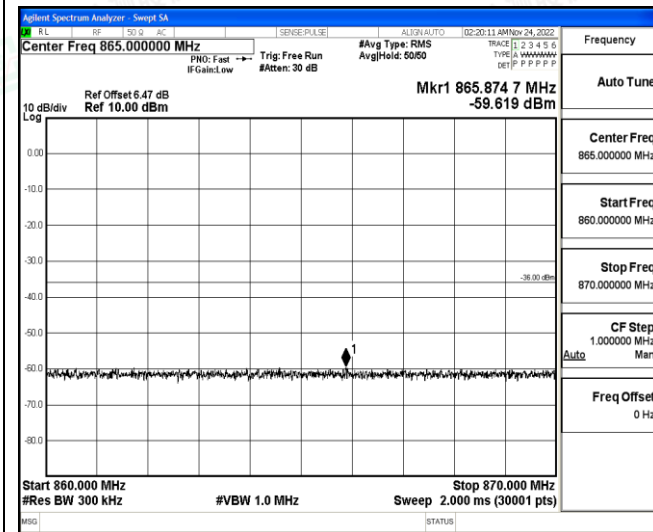
Add: Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

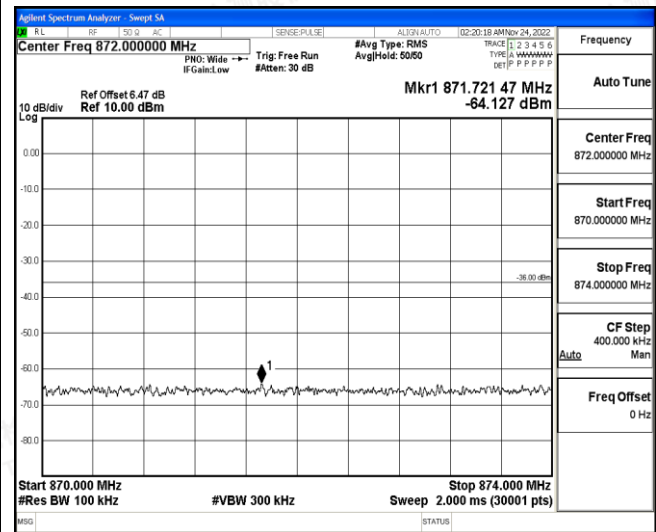
Scan code to check authenticity



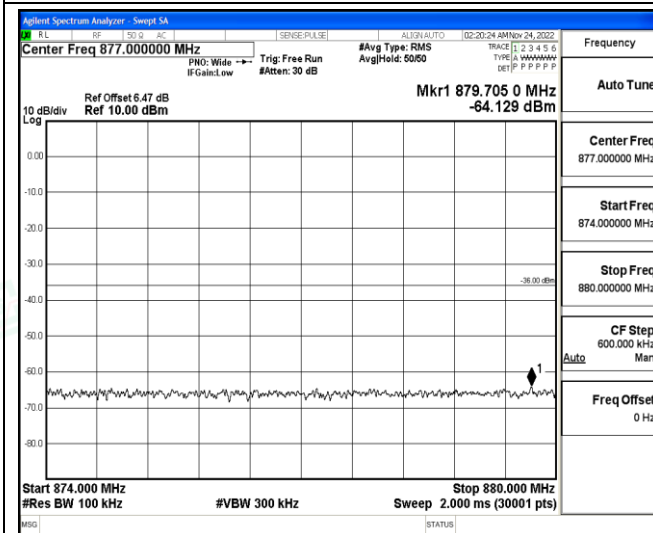
## The Worst Test Result of Spurious Emissions for GSM 900 (Middle Channel, Traffic)



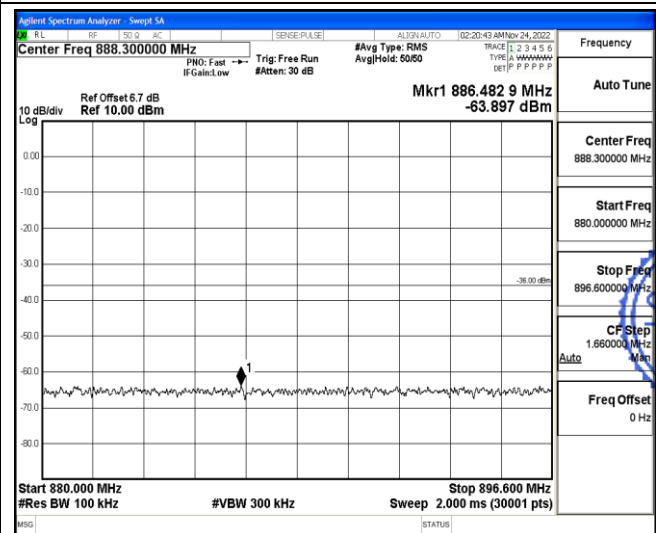
860MHz~870MHz



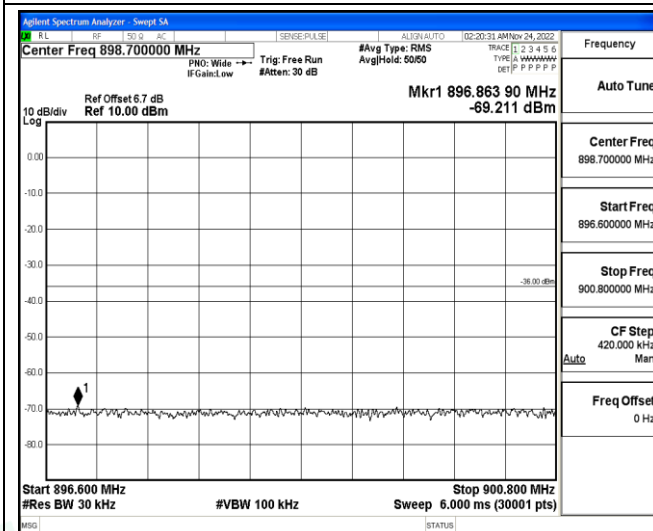
870MHz~874MHz



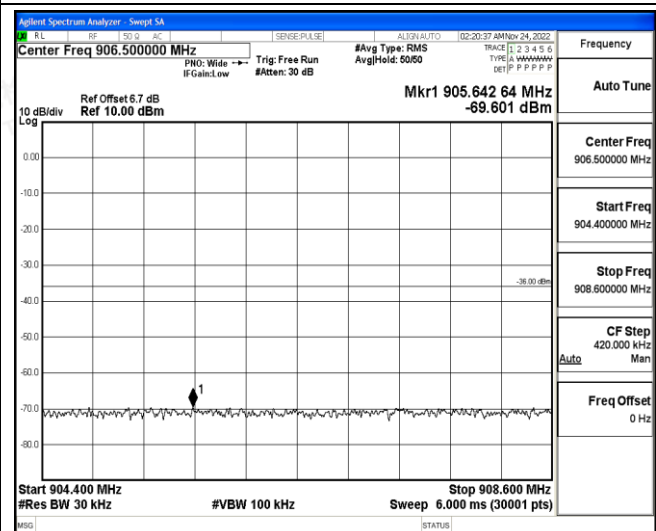
874MHz~880MHz



880.0MHz~896.6MHz



896.6MHz~900.8MHz



904.4MHz~908.6MHz



Shenzhen LCS Compliance Testing Laboratory Ltd.

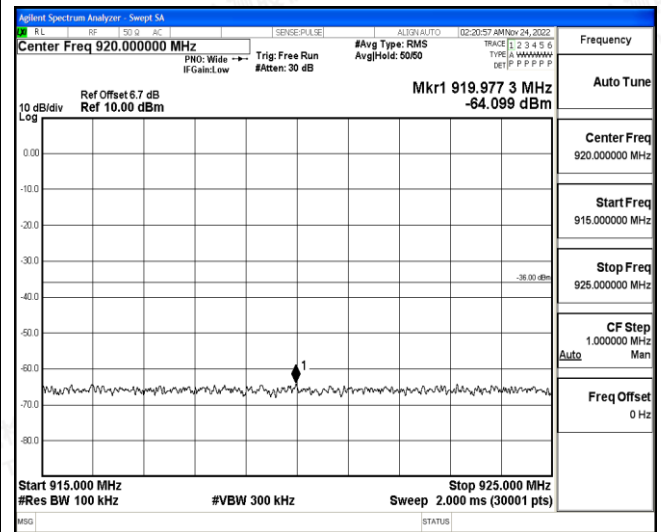
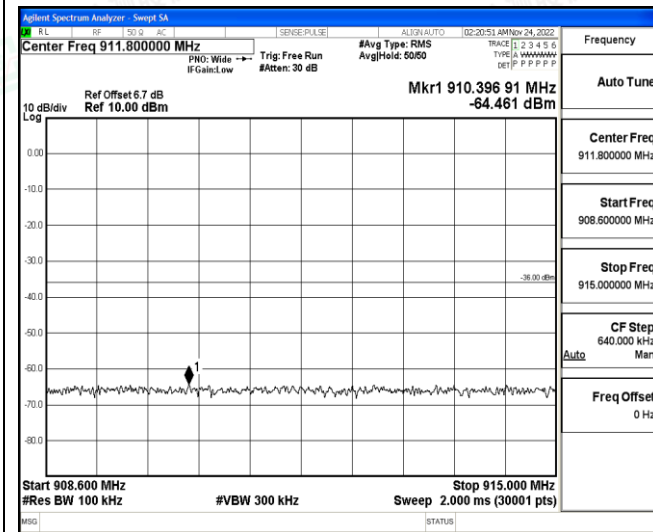
Add: Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China

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Scan code to check authenticity

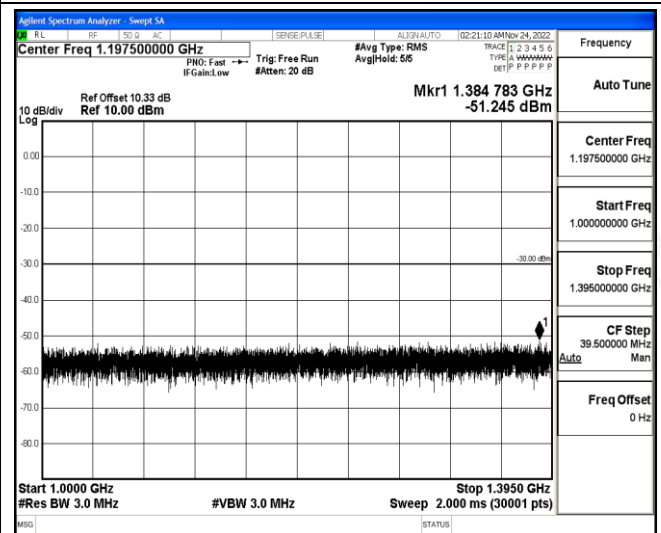
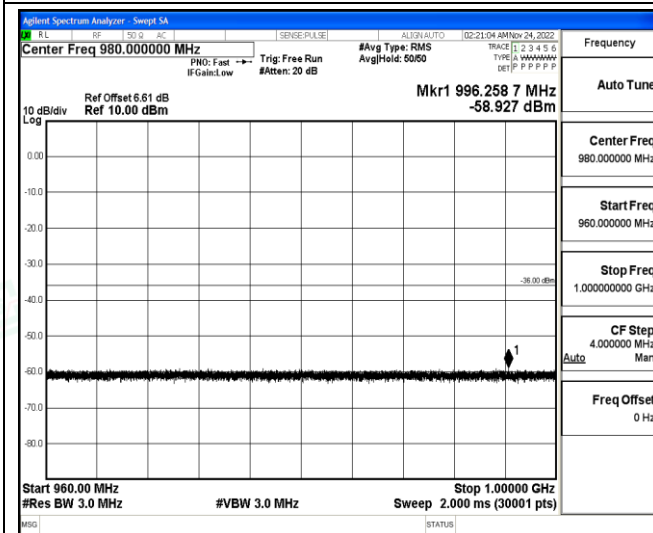


## The Worst Test Result of Spurious Emissions for GSM 900 (Middle Channel, Traffic)



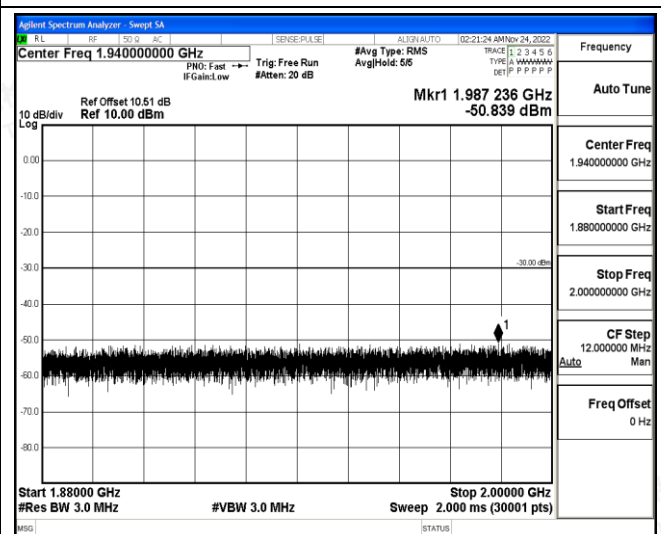
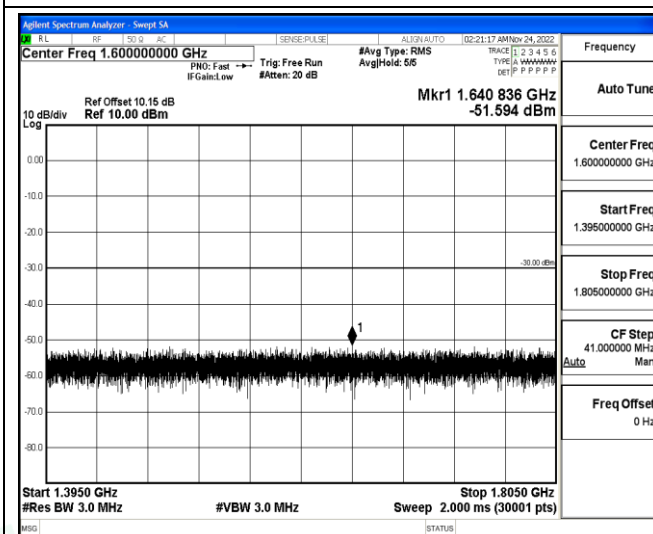
908.6MHz~915MHz

915MHz~925MHz



960MHz~1GHz

1GHz~1.395GHz



1.395GHz~1.805GHz

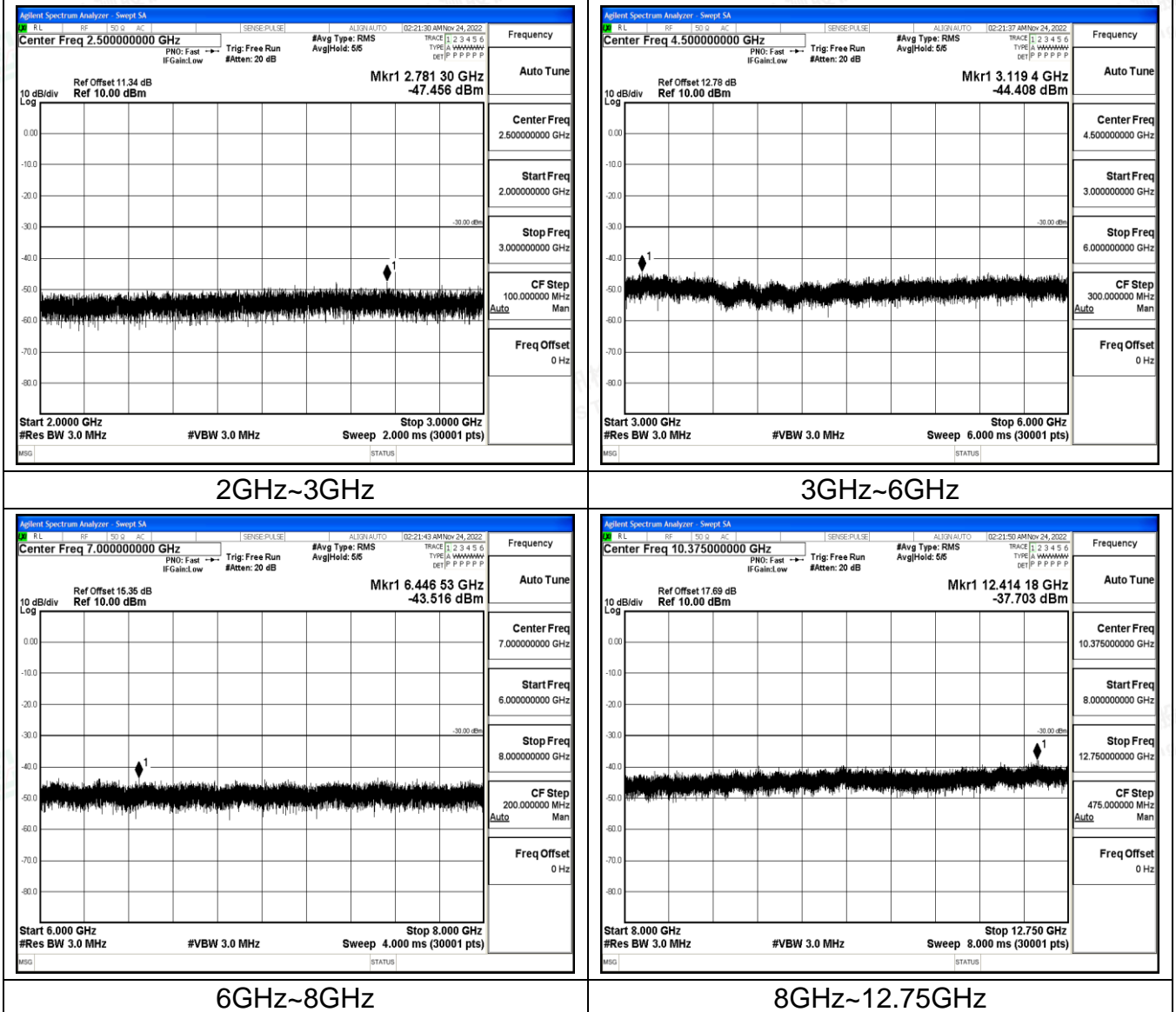
1.88GHz~2GHz



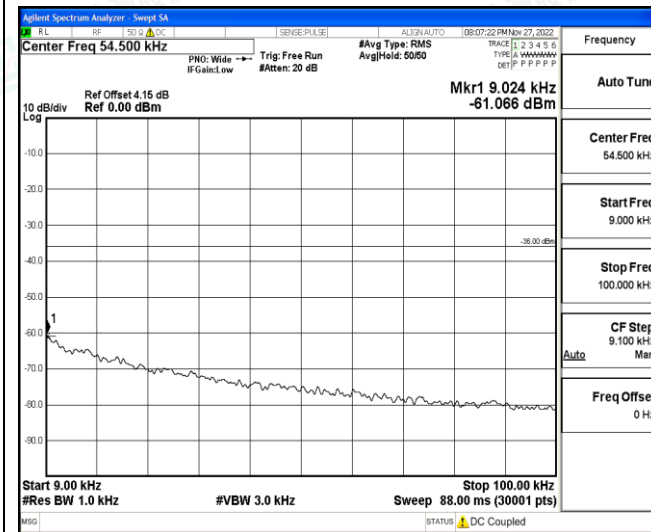




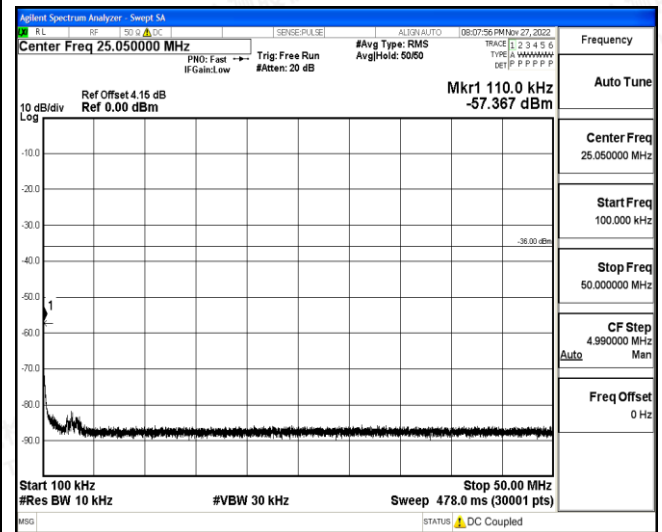
## The Worst Test Result of Spurious Emissions for GSM 900 (Middle Channel, Traffic)



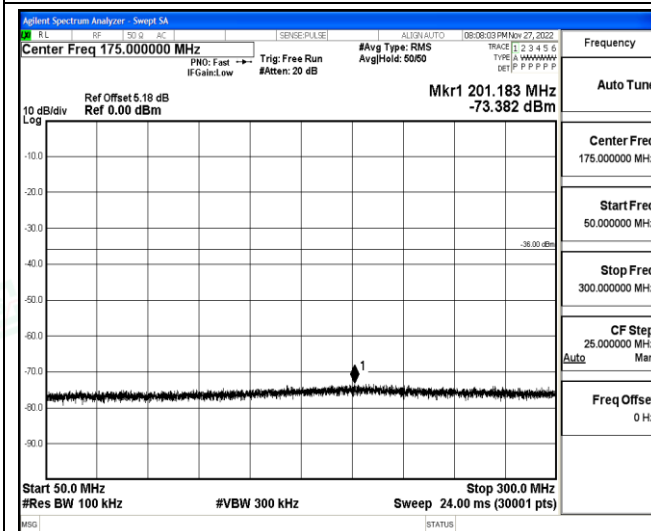
### The Worst Test Result of Spurious Emissions for DCS 1800 (Middle Channel, Traffic)



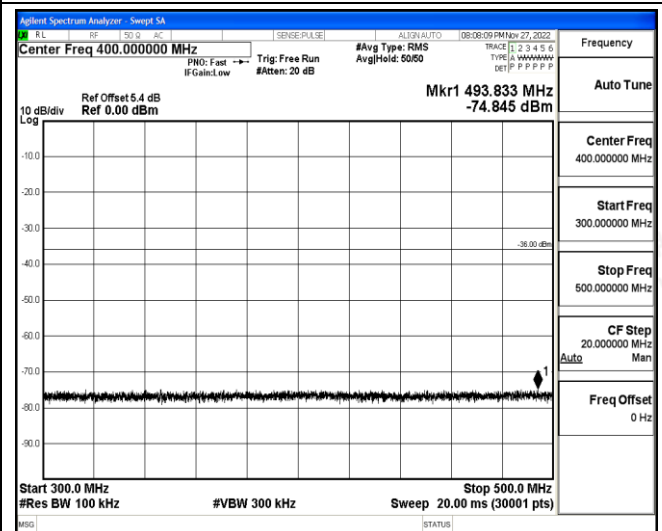
9KHz~100KHz



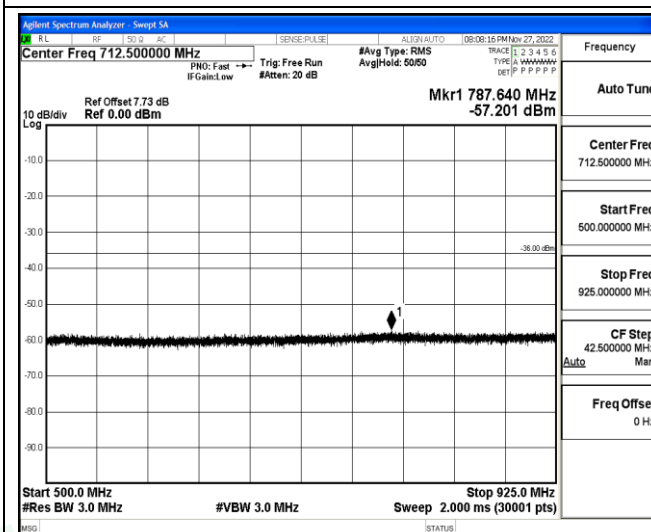
100KHz~50MHz



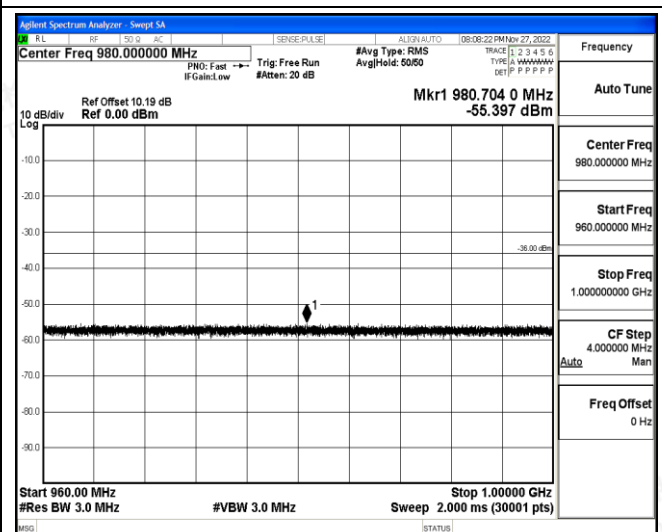
50MHz~300MHz



300MHz~500MHz



500MHz~925MHz



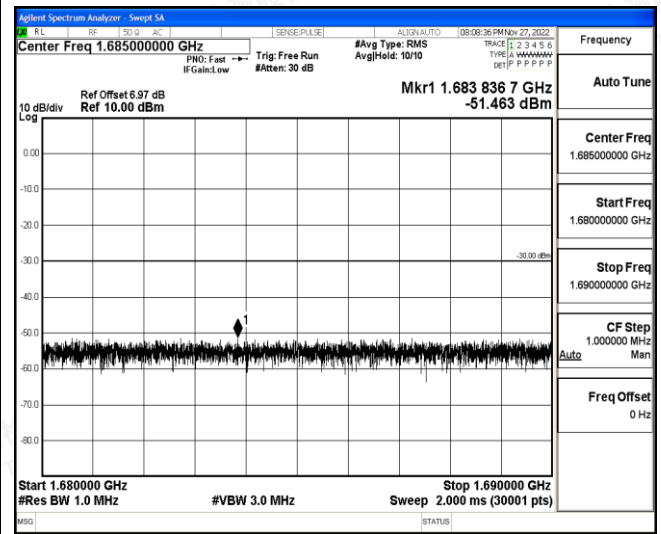
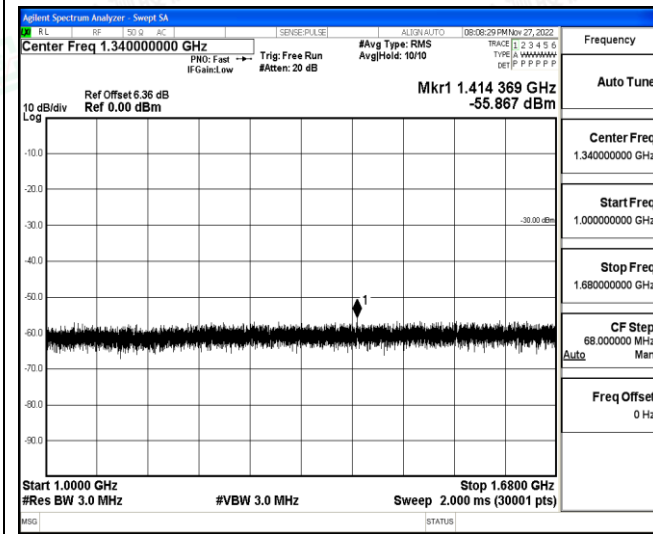
960MHz~1GHz



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Scan code to check authenticity

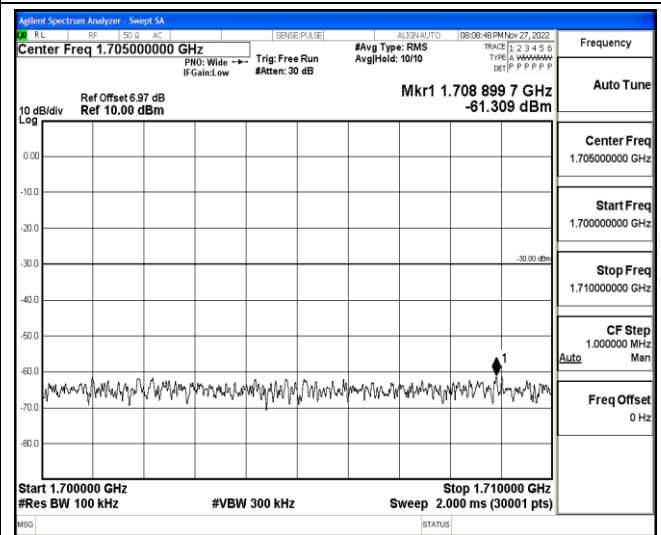
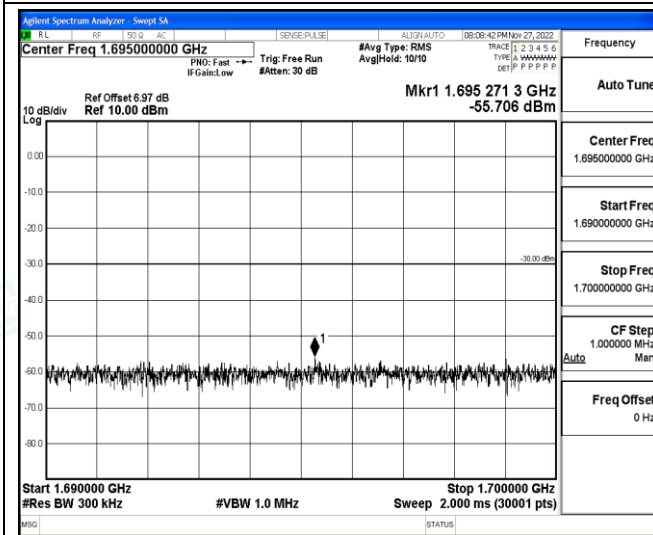


## The Worst Test Result of Spurious Emissions for DCS 1800 (Middle Channel, Traffic)



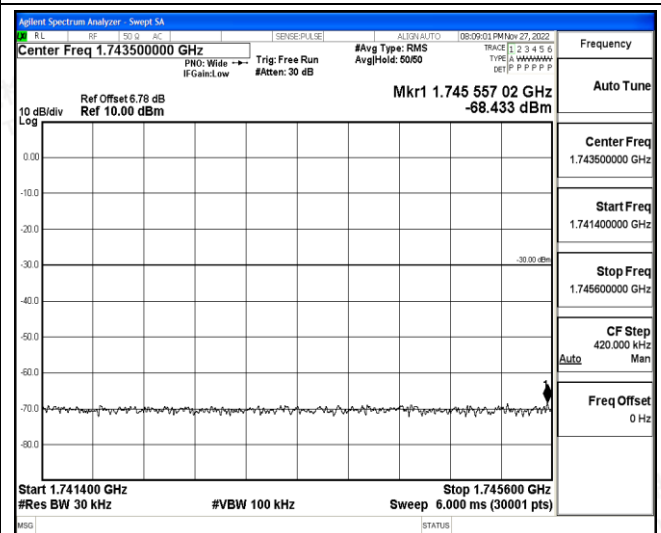
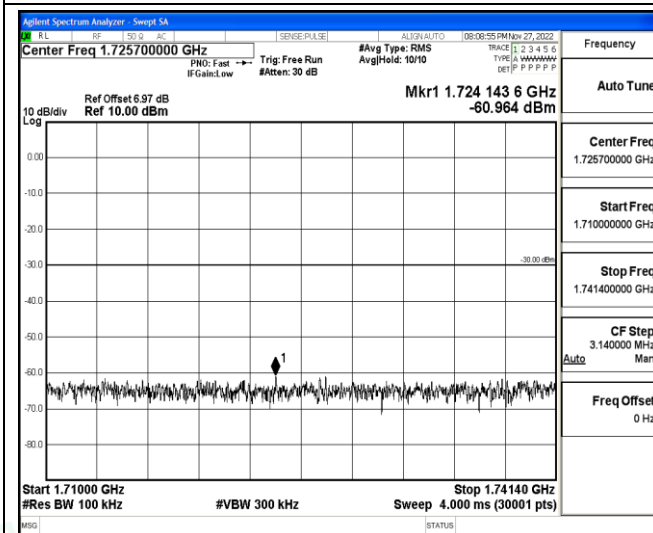
1GHz~1.680GHz

1.680GHz~1.690GHz



1.690GHz~1.700GHz

1.700GHz~1.710GHz



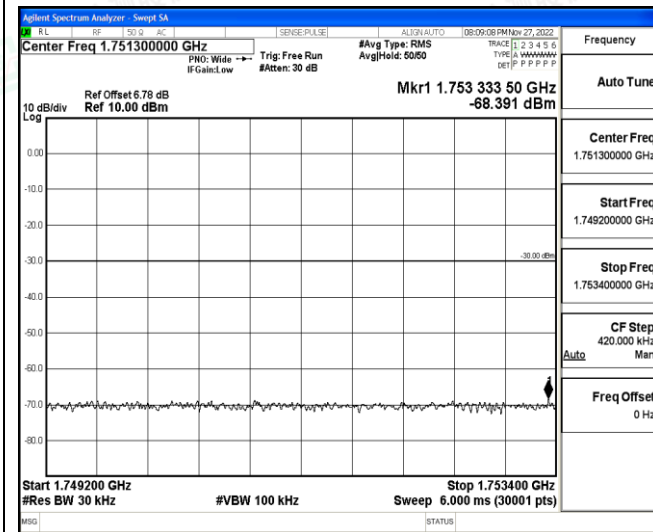
1.7100GHz~1.7414GHz

1.7414GHz~1.7456GHz

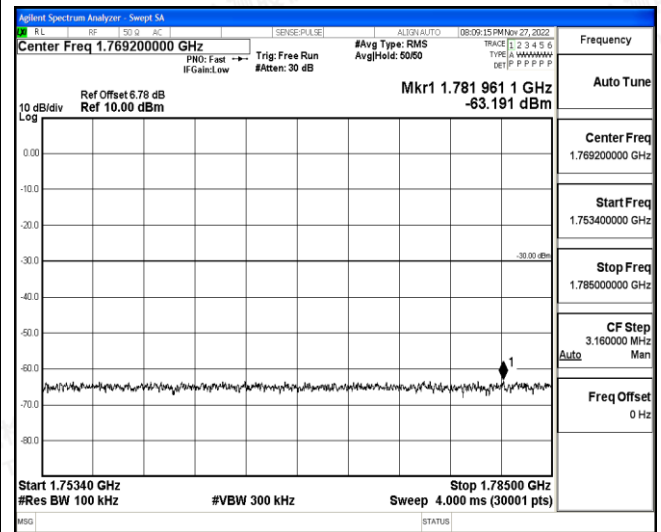




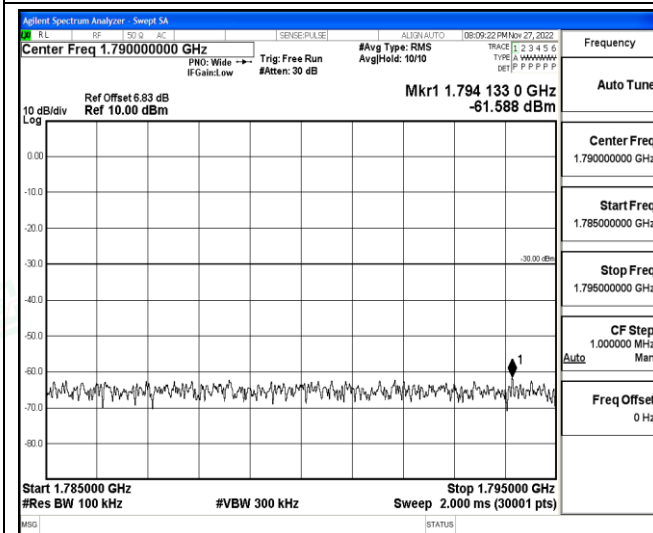
## The Worst Test Result of Spurious Emissions for DCS 1800 (Middle Channel, Traffic)



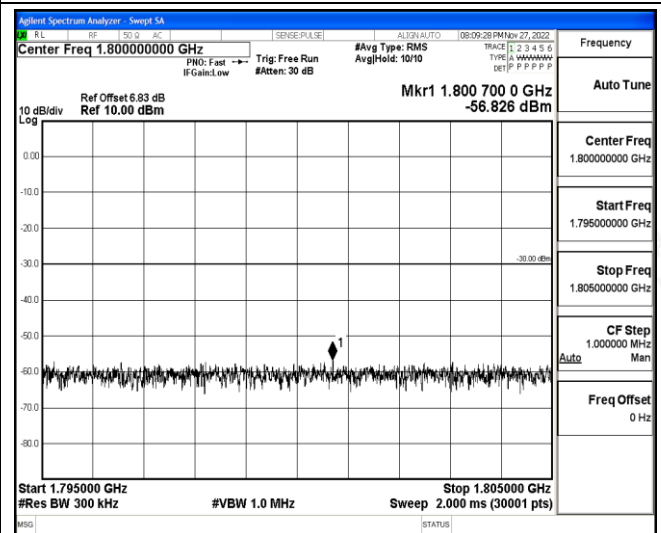
1.7492GHz~1.7534GHz



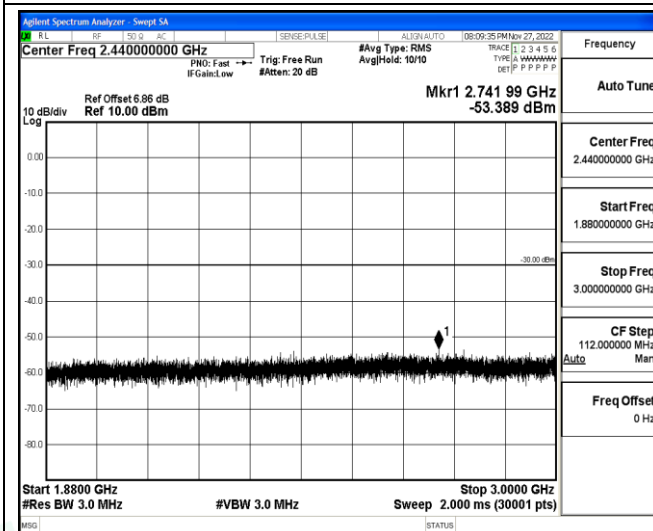
1.7534GHz~1.785GHz



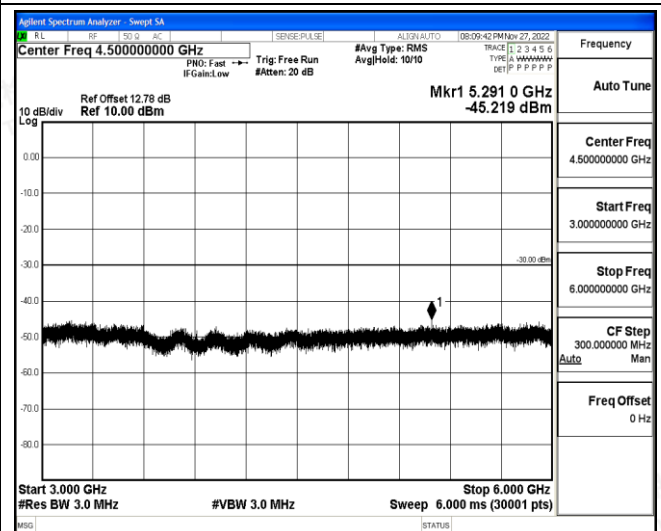
1.785GHz~1.795GHz



1.795GHz~1.805GHz



1.88GHz~3GHz

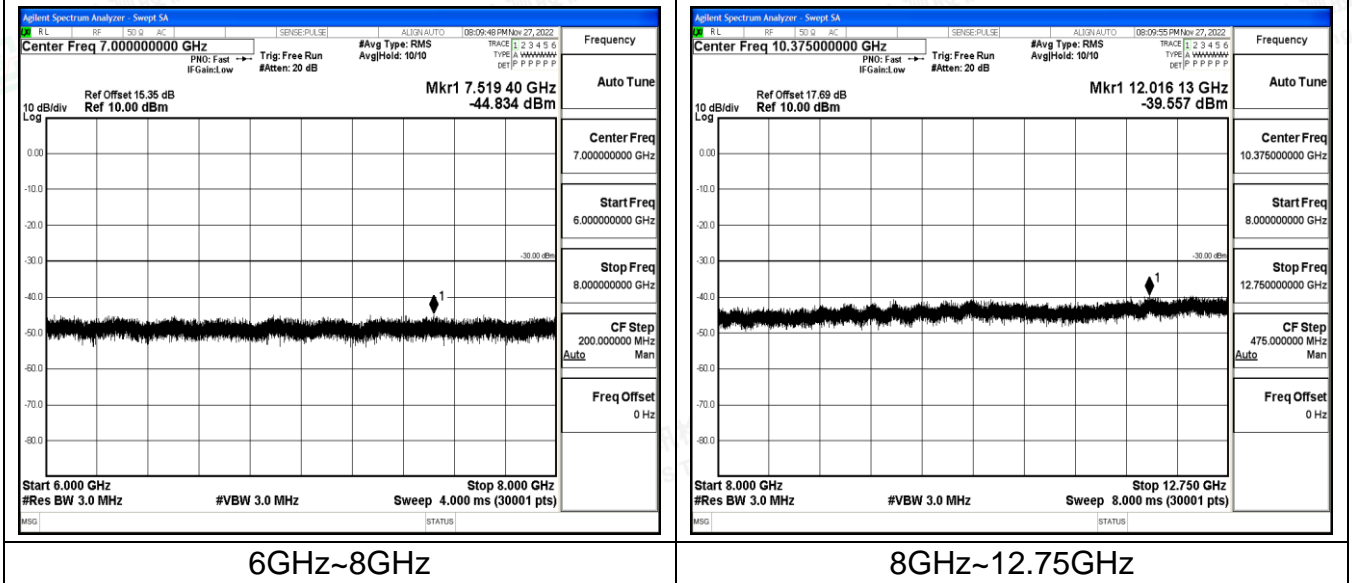


3GHz~6GHz





## The Worst Test Result of Spurious Emissions for DCS 1800 (Middle Channel, Traffic)





## Transmitter spurious emissions

### Radiated spurious emissions - MS allocated a channel(Worst Case)

| GSM 900 Band: Middle Channel, Normal condition |                            |            |             |             |
|--|----------------------------|------------|-------------|-------------|
| Frequency<br>(MHz)                             | Radiated Spurious Emission |            | Limit (dBm) | Test Result |
|  | Polarization               | Level(dBm) |             |             |
| 147.42   | Horizontal                 | -58.22     | -36.00      | Pass        |
| 311.55   | H                          | -68.81     | -36.00      |             |
| 1793.96  | H                          | -52.39     | -30.00      |             |
| 2692.54  | H                          | -51.14     | -30.00      |             |
| 3585.91  | H                          | -59.83     | -30.00      |             |
| GSM 900 Band: Middle Channel, Normal condition |                            |            |             |             |
| Frequency<br>(MHz)                             | Radiated Spurious Emission |            | Limit (dBm) | Test Result |
|  | Polarization               | Level(dBm) |             |             |
| 215.37   | Vertical                   | -63.46     | -36.00      | Pass        |
| 457.07   | V                          | -56.29     | -36.00      |             |
| 1790.77  | V                          | -62.94     | -30.00      |             |
| 2691.48  | V                          | -63.98     | -30.00      |             |
| 3580.74  | V                          | -62.06     | -30.00      |             |

| GSM 1800 Band: Middle Channel, Normal condition |                            |            |             |             |
|---|----------------------------|------------|-------------|-------------|
| Frequency<br>(MHz)                              | Radiated Spurious Emission |            | Limit (dBm) | Test Result |
|   | Polarization               | Level(dBm) |             |             |
| 123.91  | Horizontal                 | -57.95     | -36.00      | Pass        |
| 430.15  | H                          | -52.30     | -36.00      |             |
| 1440.82   | H                          | -64.91     | -30.00      |             |
| 2824.47   | H                          | -58.96     | -30.00      |             |
| 3493.79   | H                          | -61.32     | -30.00      |             |
| GSM 1800 Band: Middle Channel, Normal condition |                            |            |             |             |
| Frequency<br>(MHz)                              | Radiated Spurious Emission |            | Limit (dBm) | Test Result |
|   | Polarization               | Level(dBm) |             |             |
| 168.37  | Vertical                   | -59.98     | -36.00      | Pass        |
| 436.30  | V                          | -66.83     | -36.00      |             |
| 1444.01   | V                          | -58.99     | -30.00      |             |
| 2828.15   | V                          | -53.42     | -30.00      |             |
| 3492.87   | V                          | -58.91     | -30.00      |             |







## Radiated spurious emissions - MS in Idle Mode(Worst Case)

| GSM 900 Band: Middle Channel, Normal condition |                            |            |             |             |
|--|----------------------------|------------|-------------|-------------|
| Frequency<br>(MHz)                             | Radiated Spurious Emission |            | Limit (dBm) | Test Result |
|  | Polarization               | Level(dBm) |             |             |
| 238.24   | Horizontal                 | -73.87     | -57.00      | Pass        |
| 414.19   | H                          | -70.24     | -57.00      |             |
| 1040.92  | H                          | -74.84     | -47.00      |             |
| 2359.16  | H                          | -72.69     | -47.00      |             |
| 3476.72  | H                          | -69.57     | -47.00      |             |
| GSM 900 Band: Middle Channel, Normal condition |                            |            |             |             |
| Frequency<br>(MHz)                             | Radiated Spurious Emission |            | Limit (dBm) | Test Result |
|  | Polarization               | Level(dBm) |             |             |
| 170.38   | Vertical                   | -66.47     | -57.00      | Pass        |
| 441.75   | V                          | -63.95     | -57.00      |             |
| 1476.76  | V                          | -75.04     | -47.00      |             |
| 2351.16  | V                          | -62.73     | -47.00      |             |
| 3675.23  | V                          | -67.67     | -47.00      |             |

| DCS 1800 Band: Middle Channel, Normal condition |                            |            |             |             |
|---|----------------------------|------------|-------------|-------------|
| Frequency<br>(MHz)                              | Radiated Spurious Emission |            | Limit (dBm) | Test Result |
|   | Polarization               | Level(dBm) |             |             |
| 154.65  | Horizontal                 | -70.97     | -57.00      | Pass        |
| 494.68  | H                          | -60.77     | -57.00      |             |
| 1167.04   | H                          | -74.43     | -47.00      |             |
| 2270.54   | H                          | -69.72     | -47.00      |             |
| 3622.87   | H                          | -61.75     | -47.00      |             |
| DCS 1800 Band: Middle Channel, Normal condition |                            |            |             |             |
| Frequency<br>(MHz)                              | Radiated Spurious Emission |            | Limit (dBm) | Test Result |
|   | Polarization               | Level(dBm) |             |             |
| 74.33   | Vertical                   | -65.08     | -57.00      | Pass        |
| 474.31  | V                          | -69.97     | -57.00      |             |
| 1939.07   | V                          | -67.50     | -47.00      |             |
| 2186.19   | V                          | -62.32     | -47.00      |             |
| 3419.48   | V                          | -72.54     | -47.00      |             |

-----THE END OF REPORT-----

